

# **AUTOMATIC BEAM LIMITER CIRCUIT**

## **ABSTRACT OF THE DISCLOSURE**

An automatic beam limiter circuit (ABL circuit) calculating an average of a video  
5 signal at least a portion of the video signal is provided. After a converter circuit converts  
an analog signal, which is generated from the video signal, to a digital signal, a horizontal  
and a vertical average circuits calculate a horizontal and vertical averages of the digital  
signal at least a portion of the digital signal. The portion of the digital signal is a scanned  
line of the digital signal on a CRT. A comparison circuit compares a first calculation  
10 value calculated between a reference value and the vertical average with a second  
calculation value calculated between the reference value and the horizontal average, and  
outputs a first comparison signal and a second comparison signal based on the  
comparison results. A gain control circuit produces a gain control signal for adjusting the  
brightness/contrast in response to the first comparison and second comparison signals.  
15 Advantageously, the automatic beam limiter circuit is capable of efficiently preventing a  
frame delay in controlling the brightness/contrast of the video signal and the rapid  
increase of beam current when a black field is rapidly changed into a white field.